

Atty. Docket No. DE920000055US1  
(590.080)

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application. No changes to the claims are made herein.

**Listing of Claims:**

1-18. (Cancelled)

19. (Previously Presented) A method of processing a continuous audio stream containing human speech from a plurality of speakers related to at least one particular transaction, comprising the steps of:

identifying a known speaker from among the plurality of speakers;

digitizing the continuous audio stream;

detecting a speaker change in the digitized audio stream;

performing a speaker recognition if a speaker change is detected; and

transcribing at least part of the continuous audio stream if the known speaker is recognized;

wherein each speaker is processed using a different dictionary of different topics.

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20. (Previously Presented) A method according to claim 19, comprising a further step of protocolling time information for detected speaker changes.

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21. **(Previously Presented)** A method according to claim 19, wherein the step of detecting a speaker change and/or the step of performing a speaker recognition is/are preceded by a further step of detecting non-speech boundaries between continuous speech segments.

22. **(Previously Presented)** A method according to claim 19, wherein the step of detecting a speaker change is accomplished by use of at least one characteristic audio feature, in particular features derived from the spectrum of the audio signal.

23. **(Previously Presented)** A method according to claim 19, wherein the step of performing a speaker recognition involves the particular steps of calculating a speaker signature from the audio stream and comparing the calculated speaker signature with at least one known speaker signature.

24. **(Previously Presented)** A method according to claim 19 for use in a speech recognition or voice control system comprising at least two speaker-specific speaker models and/or dictionaries, wherein interchanging between the at least two speaker-specific dictionaries is dependent on the detected speaker change and the corresponding recognized speaker.

25. **(Previously Presented)** A method of processing a continuous audio stream containing human speech of a plurality of speakers related to at least one particular transaction, comprising the steps of:

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identifying a known speaker from among the plurality of speakers;

digitizing the continuous audio stream;

detecting a speaker change in the digitized audio stream;

performing a speaker recognition if a speaker change is detected; and

indexing the audio stream with respect to the detected speaker change if the  
known speaker is recognized;

wherein each speaker is processed using a different dictionary of different topics.

26. **(Previously Presented)** A method according to claim 25, comprising a  
further step of protocolling time information for detected speaker changes.

27. **(Previously Presented)** A method according to claim 25, wherein the step of  
detecting a speaker change and/or the step of performing a speaker recognition is/are  
preceded by a further step of detecting non-speech boundaries between continuous speech  
segments.

28. **(Previously Presented)** A method according to claim 25, wherein the step of  
detecting a speaker change is accomplished by use of at least one characteristic audio  
feature, in particular features derived from the spectrum of the audio signal.

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29. **(Previously Presented)** A method according to claim 25, wherein the step of performing a speaker recognition involves the particular steps of calculating a speaker signature from the audio stream and comparing the calculated speaker signature with at least one known speaker signature.

30. **(Previously Presented)** A method according to claim 25 for use in a speech recognition or voice control system comprising at least two speaker-specific speaker models and/or dictionaries, wherein interchanging between the at least two speaker-specific dictionaries is dependent on the detected speaker change and the corresponding recognized speaker.

31. **(Previously Presented)** An apparatus for processing a continuous audio stream containing human speech from a plurality of speakers related to at least one particular transaction, comprising:

a predeterminer which predetermines at least one known speaker from among the plurality of speakers;

a detector which detects speaker changes in the audio stream;

a recognizer which recognizes the predetermined speaker in the audio stream; and

an initiator which initiates transcription of at least part of the audio stream in case

of a detected speaker change and a recognized predetermined known speaker;

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wherein each speaker is processed using a different dictionary of different topics.

32. **(Previously Presented)** An apparatus according to claim 31, further comprising a detector which detects non-speech boundaries between continuous speech segments.

33. **(Previously Presented)** An apparatus according to claim 31, further comprising a scanner which automatically scans a continuous audio record, in particular a continuous audio stream recorded on a data or a signal carrier, and for detecting speaker changes in the continuous audio record.

34. **(Previously Presented)** An apparatus according to claim 31, further comprising a monitor which continuously monitors a real-time continuous audio stream and performing the steps of

digitizing the continuous audio stream;

detecting a speaker change in the digitized audio stream;

performing a speaker recognition if a speaker change is detected; and

transcribing at least part of the continuous audio stream if a predetermined speaker is recognized.

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35. **(Previously Presented)** An apparatus according to claim 31, further comprising a monitor which continuously monitors a real-time continuous audio stream and performing the steps of

digitizing the continuous audio stream;

detecting a speaker change in the digitized audio stream;

performing a speaker recognition if a speaker change is detected; and

indexing the audio stream with respect to the detected speaker change if a predetermined speaker is recognized.

36. **(Previously Presented)** An apparatus according to claim 31, further comprising a logging device which protocols time information for the at least one detected speaker change.

37. **(Previously Presented)** An apparatus according to claim 31, comprising a marking device which marks at least the beginning of a detected speech segment related to a predetermined speaker.

38. **(Previously Presented)** An apparatus according to claim 31, comprising data base which stores speech signatures for at least two speakers.

39. **(Previously Presented)** An apparatus for processing a continuous audio stream containing human speech from a plurality of speakers related to at least one particular transaction, comprising:

a predeterminer which predetermines at least one known speaker from among the plurality of speakers;

a detector which detects speaker changes in the audio stream;

a recognizer which recognizes the predetermined speaker in the audio stream; and

an indexer for indexing the audio stream dependent on a detected speaker change and a recognized predetermined speaker;

wherein each speaker is processed using a different dictionary of different topics.

40. **(Previously Presented)** An apparatus according to claim 39, further comprising a detector which detects non-speech boundaries between continuous speech segments.

41. **(Previously Presented)** An apparatus according to claim 39, further comprising a scanner which automatically scans a continuous audio record, in particular a continuous audio stream recorded on a data or a signal carrier, and for detecting speaker changes in the continuous audio record.

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**42. (Previously Presented)** An apparatus according to claim 39, further comprising a monitor which continuously monitors a real-time continuous audio stream and performing the steps of

digitizing the continuous audio stream;

detecting a speaker change in the digitized audio stream;

performing a speaker recognition if a speaker change is detected; and

transcribing at least part of the continuous audio stream if a predetermined speaker is recognized.

**43. (Previously Presented)** An apparatus according to claim 39, further comprising a monitor which continuously monitors a real-time continuous audio stream and performing the steps of

digitizing the continuous audio stream;

detecting a speaker change in the digitized audio stream;

performing a speaker recognition if a speaker change is detected; and

indexing the audio stream with respect to the detected speaker change if a

predetermined speaker is recognized.



44. **(Previously Presented)** An apparatus according to claim 39, further comprising a logging device which protocols time information for the at least one detected speaker change.

45. **(Previously Presented)** An apparatus according to claim 39, comprising a marking device which marks at least the beginning of a detected speech segment related to a predetermined speaker.

46. **(Previously Presented)** An apparatus according to claim 39, comprising data base which stores speech signatures for at least two speakers.

47. **(Previously Presented)** A speech recognition or voice control system processing an incoming audio stream containing human speech from a plurality of speakers and having at least two speaker models and/or speaker-specific dictionaries, comprising:

a detector which detects a speaker change in the incoming audio stream;

a gatherer which gathers speaker-specific information and for comparing the gathered speaker-specific information with corresponding speaker-specific information of at least one predetermined known speaker from among the plurality of speakers thus recognizing the at least one predetermined speaker; and

an interchanger which interchanges between the at least two speaker-specific dictionaries dependent on the detected speaker change and the corresponding recognized speaker.

48. **(Previously Presented)** A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for processing a continuous audio stream containing human speech from a plurality of speakers related to at least one particular transaction, said method comprising the steps of:

identifying a known speaker from among the plurality of speakers;

digitizing the continuous audio stream;

detecting a speaker change in the digitized audio stream;

performing a speaker recognition if a speaker change is detected; and

transcribing at least part of the continuous audio stream if the known speaker is recognized;

wherein each speaker is processed using a different dictionary of different topics.

49. **(Previously Presented)** A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for processing a continuous audio stream containing human speech from a

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plurality of speakers related to at least one particular transaction, said method comprising the steps of:

identifying a known speaker from among the plurality of speakers;

digitizing the continuous audio stream;

detecting a speaker change in the digitized audio stream;

performing a speaker recognition if a speaker change is detected; and

indexing the audio stream with respect to the detected speaker change if the known speaker is recognized;

wherein each speaker is processed using a different dictionary of different topics.

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